

What is claimed is:

1. A method of transmitting data over a public packet switched network, the method comprising the steps of:
  - utilizing a transport protocol at each of two computers to facilitate the connection between the two computers;
  - interposing at least a first proxy between said two computers, said first proxy utilizing the transport protocol, the proxy server providing auditing and acknowledgment functionality, in addition to functionality provided by the two computers.
2. The method of claim 1 further comprising interposing two proxy servers between said two computers.
3. The method of claim 1 wherein a first of said two computers is a client computer and a second of said computers is a server computer.
4. The method of claim 3 wherein a first proxy server emulates said server computer and is in communication with said client computer.
5. The method of claim 4 wherein said second proxy server emulates a client computer and is in communication with said server computer.
6. The method of claim 5 wherein at least one of said proxy servers assigns a tracking identifier to each unit of data transmitted through said at least one proxy server.
7. The method of claim 6 wherein said tracking number is conveyed with said unit of data from said first proxy to said second proxy, and wherein said tracking identifier is also conveyed to said client computer.

8. The method of claim 7 wherein plural said tracking numbers are stored in said client computer, thereby providing a history of the conveyance of each of said data units.
9. The method of claim 8 wherein delivery information for each unit of said data is stored on said first proxy or on an audit server, and wherein said client computer establishes communication with said first proxy or said audit server, and wherein said delivery information is viewable at said client computer to thereby provide tracking information for each of said units of data.
10. The method of claim 9 wherein the data units are packets.
11. A method of tracking communications sent from a first computer to a second computer over a data network, the method comprising:
  - transmitting data from a client computer to a proxy that emulates a server computer with which said client computer is arranged to communicate;
  - assigning audit information to said data, and transmitting said audit information both towards the server computer and in the opposite direction towards the client computer.
12. The method of claim 11 wherein said transmission of said audit information towards the client computer and towards said server computer occurs substantially simultaneously.
13. The method of claim 11 wherein said audit information is stored in a manner such that it is remotely accessible over a packet switched data network.
14. The method of claim 13 wherein transmitting said audit information toward said server includes transmitting said audit information to a second proxy.

15. The method of claim 14 wherein said second proxy communicates with said server, and wherein said second proxy also maintains audit information concerning data transmitted and received.
16. A method of conducting a communication session using a file transfer protocol comprising: initiating a communications session between a client and a server through at least two proxies, said communications session being configured at the client and server to encapsulate plural separate files;  
receiving, a first proxy associated with said client, files encapsulated within a single communications session;  
encapsulating said files into separate communications sessions at said first proxy;  
transmitting said separately encapsulated files over a packet switched data network from a first proxy to a second proxy.
17. The method of claim 16 wherein audit information concerning each separately encapsulated file is generated by either said first or second proxy.
18. The method of claim 17 wherein, in the event of a failure of a server during transfer of said files, a new session is automatically initiated by one of said the first proxy or the second proxy.
19. A proxy server for communication with a computer protected by a firewall, said proxy server comprising a processor for detecting a transport protocol used to communicate through the firewall over a data network, and means for automatically configuring the proxy server to utilize said transport protocol.

20. The proxy server of claim 19 further comprising a processor programmed to generate audit data and to transmit said audit data to a computer from which information to be transmitted is received and to a second proxy server.
21. A proxy server to be interposed between two computers configured to communicate over a data network, said proxy server comprising software for auditing and tracking data units conveyed from a client computer to said proxy server and to be conveyed over a data network to a server computer, said proxy server being configured to examine each data unit conveyed through said proxy server, and to send a tracking code in two directions, one being toward the client and another direction being toward the server computer.
22. Apparatus comprising at least two proxy servers interconnected over a data network, the network including nodes that communicate via various transport layer protocols, the apparatus comprising a first proxy server configured to emulate a client computer, a second proxy server configured to emulate a server computer with which the client computer is intended to communicate, each of said first and second proxy server being configured to communicate using a selected one of said transport layer protocols, and having software to convert any data received from either said client computer or said server computer to utilize said selected transport layer protocol for communications between said first and second proxy server.
23. Apparatus of claim 22 wherein said first and second proxy servers communicate using HTTP.

24. Apparatus of claim 23 wherein at least one of said proxy servers is configured to communicate with a message queuing system associated with a software application.
25. Apparatus of claim 24 wherein at least one of said proxy servers communicates with a computer using HTTP, FTP, or SMTP.
26. A method for transmitting data from a first computer to a second computer, comprising:
- sending, by means of a sending application using a first protocol at said first computer, said data to a connection system;
  - receiving said data at said connection system; and
  - sending, using a second protocol, said received data from said connection server to a receiving application at said second computer.
27. The method of claim 26, further comprising a step of determining, at said connection system, said first protocol and selecting the same one from plurality protocols to interface said first protocol.
28. The method of claim 26, wherein said data received at said connection from said first computer comprises address information of said second computer.
29. The method of claim 26, further comprising a step that said first computer informs said connection system of said second protocol to be used by said second computer.
30. The method of claim 29, further comprising a step, at said connection system, selecting, upon being informed of said second protocol, the same one from plurality protocols to interface said second protocol.

31. The method of claim 26, wherein said connection system comprises a connection server, a first gateway for receiving said data from said first computer and a second gateway for sending said received data to said second computer.
32. The method of claim 30, further comprising encrypting said data in an envelop at said first gateway.
33. The method of claim 30, further comprising decrypting said enveloped data at said second gateway.
34. The method of claim 30, further comprising morphing said data at said first gateway and/or said second gateway.
35. The method of claim 30, further comprising morphing said data at said second gateway to change said data to a format suitable to the receiving application at said second computer.
36. The method of claim 26, further comprising generating and maintaining, at said connection system, a tracking record including a tracking number and status for said data transmission.
37. The method of claim 35, further comprising sending, from said connection system, said tracking number back to said first computer and/or said second computer.
38. The method of claim 26, comprising sending said data from said first computer to said connection system synchronously, and sending said received data from said connection system to said second computer asynchronously, or vice versa.
39. The method of claim 26, wherein said first protocol one of Internet protocols.
40. The method of claim 26, wherein said second protocol one of Internet protocols.

41. An adaptive connection system for message transmission from a sending application at a first computer to a receiving application at a second computer, comprising:
- a first gateway to interfacing said sending application with a first protocol;
  - a second gateway to interfacing said receiving application with a second protocol;
  - and
  - a connection server bridging between said first and second gateways over a network .for receiving said message from said first gateway and forwarding the same to said second gateway.
42. The adaptive connection system of claim 41, wherein each of said gateways comprises multiple interfaces each suitable to one of multiple protocols.
43. The adaptive connection system of claim 42, wherein said first gateway comprises a protocol handler to identify the first protocol used by said first computer and to select the same one from the multiple protocols to interface said sending application.
44. The adaptive connection system of claim 42, wherein said second gateway comprises a protocol handler to select said second protocol from said multiple protocols to face said receiving application.
45. The adaptive connection system of claim 41, wherein each of said gateways comprises a morphing module to examine and change said data received by respective gateway.

46. The adaptive connection system of claim 45, wherein said morphing module at said gateway is capable of changing said data to a format suitable to said receiving application.
47. The adaptive connection system of claim 41, wherein said first protocol is one of internet protocols.
48. The adaptive connection system of claim 41, wherein said second protocol is one of internet protocols.
49. The adaptive connection system of claim 41, wherein said connection server comprises means for generating tracking information for said message including a tracking number and transmission status.
50. The adaptive connection system of claim 49, wherein said connection server comprises means for providing said tracking number to said first computer and/or said second computer.
51. The adaptive connection system of claim 49, further comprises a tracking server for keeping and maintaining said tracking data.
52. The adaptive connection system of claim 51, wherein said tracking server is the same as said connection server.
53. The adaptive connection system of claim 51, wherein said tracking server is remotely located from said connection server, and is accessible by said first and/or second computer over internet.
54. The adaptive connection system of claim 41, wherein each of said first and second protocols is one of HTTP, FTP, SMTP.



55. The adaptive connection system of claim 41, wherein said connection server communicates with at least one of said two gateways through a firewall.
56. The adaptive connection system of claim 41, wherein said first gateway comprises means for encrypting said message in an envelop, and said second gateway comprises means for decrypting said enveloped message.
57. The adaptive connection system of claim 41, wherein each of said sending application and said receiving application can be either a synchronous application or an asynchronous application.